

REMARKS

Claims 1, 2, 5, 9-16, 18-20 and 24-29 are pending. No new matter has been added.

Rejection under 35 U.S.C. § 103

Claims 1, 2, 5, 9-16, 18-20 and 24-29 are finally rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 99/15629 “in view of the known fact disclosed in the Specification on page 11, lines 9-26 and US Patent 6,830,927”. Applicant respectfully traverses.

The Examiner has considered Applicant’s previously filed arguments but has not found them to be convincing for a number of reasons. Applicant addresses each of these reasons below.

The Examiner asserts that Applicant, in the previous response, argued the cited references individually rather arguing their combination. Applicant respectfully traverses. Applicant challenged the motivation to combine the references, and in doing so, discussed the references and pointed out the differences between them. Such differences argue against the combination of the references. Applicant did not argue the references individually.

With respect to the Applicant’s arguments relating to motivation to combine the references, the Examiner disregards the fact that the references teach differentiation of *different* progenitor populations. WO99/15629 teaches differentiation of *hematopoietic* progenitor cells into hematopoietic lineages. US 6,830,927 teaches differentiation of *neuroepithelial* stem cells into nervous system lineages. Applicant’s arguments were directed at establishing that these progenitor types are different, and thus there would be no motivation to combine the references by subjecting the hematopoietic progenitor cells of WO 99/15629 to the culture conditions of the neuroepithelial stem cells of US 6,830,927. In addition, there would be no reasonable expectation of success in such a modification. In disregarding this argument, the Examiner asserts that “one skill (sic, skilled) in the art at the time the invention was made would know that pluripotent progenitor stem cell are the cells that can be induced to differentiate into various specialized types of cells of hematopoietic or non-hematopoietic lineage depending on the growth conditions and growth factors”. Applicant strongly traverses this statement. First, the Examiner has failed to support this statement with any evidentiary proof, as is required. Second, the Examiner mischaracterizes the progenitor populations as taught by these references. Neither

reference teaches that its progenitor cells “can be induced to differentiate into various specialized types of cells of hematopoietic or non-hematopoietic lineage”. If the Examiner disagrees, he is asked to point out the support for this statement.

With respect to the Examiner’s statement that WO 99/15629 “does not limit the use of claimed method (sic) to induced differentiation only into hematopoietic cell lineage”, Applicant submits that this fact does not give rise to the requisite motivation to modify the teachings of this reference.

With respect to the Examiner’s continued reliance on the *instant* specification page 11 lines 9-26 which lists a number of growth factors, including bFGF and EGF, Applicant reiterates that an obviousness rejection must be based on the teachings of the prior art and not on the teachings within the instant specification. The Examiner must consider the prior art as if he has never read the instant specification. To do otherwise would be to engage in impermissible hindsight. Thus the Examiner’s reliance on the specification and its combination with the prior art is improper.

With respect to the Examiner’s reliance on In re Sernaker, 702 F.2d 989, 994-95, 217 USPQ 1, 5-6 (Fed. Cir. 1983), Applicant reiterates that this case teaches that “it is not necessary that the prior art suggest expressly or in so many words, the “changes or possible improvements” the inventor made. It was only necessary that he apply “*knowledge clearly present in the prior art.*” Sheckler, 438 F.2d at 1001, 168 USPQ at 717. (Emphasis supplied.) If this last test is not met, the invention claimed would not have been obvious from the references.” Id. at 217. Applicant maintains that the cited art does not provide such knowledge. Nothing in the cited art teaches that neural differentiation from hematopoietic progenitor cells is possible, let alone the conditions for effecting such differentiation. Applicant further notes that, using the standard referred to above, the Court in In re Sernaker reversed the Board’s determination of obviousness.

The Examiner correctly noted a typographical error in Applicant’s previous response. Applicant intended that US Patent 6,830,927 does not contemplate that its progenitors are able to differentiate into any lineages other than *neuronal* (rather than hematopoietic) lineages.

In view of the foregoing, Applicant maintains that there is no motivation to combine the cited references, and no reasonable expectation of success from such combination. Accordingly, the Examiner has failed to meet his burden of establishing a prima facie case of obviousness, and the claimed invention is not rendered obvious by the cited art.

Reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, which is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Applicant's representative requests a telephone interview with the Examiner and his supervisor should this paper not place the claims in condition for allowance.

Respectfully submitted,



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